

Governor's STEM Academy Brief



Office of Career and Technical Education Services

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The purpose of this monthly brief is to provide information, resources, and a networking vehicle to support the STEM (science, technology, engineering, and mathematics) Academies in Virginia.

GOVERNOR'S STEM ACADEMIES SPOTLIGHT

The New Commonwealth Governor's STEM Academy at Chantilly High School, Fairfax County, will open in 2013-2014. Currently, Cisco, Oracle and Microsoft dual enrollment courses are available at Northern Virginia Community College, Woodbridge campus. To date, 98 percent of the students enrolled in the Cyber Security program are participating in dual enrollment, saving nearly \$7,000 in course material and fees after high school. Students completing the Cisco, Microsoft and Oracle courses will be eligible to take appropriate credentialing exams leading to designations as Microsoft Certified Professional, Cisco Certified Network Associate and Oracle Database Manager.

CAREER LINKS—FOCUS ON BUSINESS MANAGEMENT & ADMINISTRATION CAREER CLUSTER

- [Career and occupational information](#) for Business, Management, and Executive Careers, including nature of the work, working conditions, employment, training and advancement, job outlook, and earnings, is available at one convenient site.
- For sample careers and information about the pathways in the Business Management & Administration career cluster, visit [Career Clusters](#) and explore the links.
- The [U.S. Small Business Administration](#) provides guidance on many management-related topics, including leadership, planning, and human resources.
- Three online publications featuring business marketing management resources for teachers and students are [Advertising and Marketing Review](#) (see [Feature Archive](#)), [Inc.](#) (see [Start-up](#)), and [Entrepreneur Magazine](#) (see [Marketing Basics](#)).
- [Careers in Business](#) presents free, detailed information on management and executive jobs, including salary data and entry requirements.
- [Business and Finance Career Resources](#) is a gateway to lesson plans, career links, templates, and other links for business management and administration educators.
- The American Management Association offers a wide variety of business management topics through [Articles and White Paper Solutions](#).
- The [Wall Street Journal](#) site contains daily world financial information and other links useful in business management and administration pathway classrooms, including a [How-To Guide](#) for management.
- The [American Society of Administrative Professionals](#) offers links to columns and articles on practical topics related to office administration. Free registration is required for access to these resources.

GRANTS AND OPPORTUNITIES

- [The Virginia Space Grant Consortium](#) provides a free service to college students seeking internships in the fields of science, technology, engineering and mathematics. The program allows a student to submit a general application to many employers or to streamline choices to particular employers or regions of the state.
- Business Management and Administration was reported to be among the [most popular college majors](#) with students today. Not only is business a [profitable major](#), but business majors also have more options than almost anyone else as far as [future employment prospects](#) are concerned. [Corporate and private scholarships](#) are available.

- Fueled by a five-million-dollar grant from the technology company Google, more than 800 public high schools will be invited to start up [Advanced Placement STEM courses](#) with a focus on attracting more female and minority students who show strong potential to succeed. The new program—to be developed by the College Board in collaboration with the nonprofit DonorsChoose.org, the grant recipient—will work directly with teachers in qualifying schools to help them obtain the training and classroom resources they need to launch AP courses.

INSTRUCTIONAL STRATEGIES

- Wind turbines were recently installed at Central High School in Woodstock and at Thomas Harrison Middle School in Harrisonburg as part of James Madison University's [Wind for Schools](#) program. The Central High turbine will generate enough electricity to power one classroom, but the main purpose of the project is to help educate students about wind as a sustainable energy source.
- Visit [The Gateway to 21st Century Skills](#) to access lesson plans for [business management](#), [accounting](#), [marketing](#), and related areas.
- [The Glossary of Instructional Strategies](#) lists, describes, and gives examples of instructional strategies for different subjects and grade levels.
- Dr. Maurice Frazier of Chesapeake shares his PowerPoint presentation on [Instructional Strategies Promoting STEM and Technological Literacy](#).
- The [Consortium for Entrepreneurship Education](#) offers [Entrepreneurship Classroom Activities](#) and other materials for business marketing and management.
- See the [CSEC Office Administration](#) site for links to lesson plans, document templates, Excel and PowerPoint resources, and other tools for teaching office administration basics and preparing students for CSEC examinations.
- [Business Education Lesson Plans by Tonya Skinner](#) includes classroom resources on topics such as business/office technology, desktop publishing, and HTML/Web publishing.
- The U.S. Census Bureau provides a downloadable [teaching guide](#) with lessons and activities to help students in grades 9-12 understand the importance of census data.
- The National Education Association offers a [Guide to Teaching Online Courses](#) for secondary school education.
- Visit the DECA site for [sample exam questions](#) to help prepare students for the Human Resources Management Series Event and other competitions.
- In *HR Magazine*, the Society for Human Resource Management offers free downloadable material for HR educators, including [Cases and Learning Modules](#) and [Guide to Organizing an Internship Program](#). Although developed for postsecondary faculty, these resources can be helpful to secondary educators as well.
- Visit the Illinois CTE Resource Center's site to find instructional links for [Business, Marketing, and Computer Education](#), including lesson plans, games, rubrics, and more.
- [Smartphones Shift STEM Learning to the Field.](#) A new educational tool aims to help engage students in science education. Active Explorer allows teachers to design exploratory assignments and students to share data online after completing tasks, such as identifying local plants. Active Explorer runs on Android phones but is free to download.

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